

**APPARATUS AND METHOD FOR COMMUNICATING BETWEEN
COMPUTER SYSTEMS USING A SLIDING SEND WINDOW FOR ORDERED
MESSAGES IN A CLUSTERED COMPUTING ENVIRONMENT**

ABSTRACT OF THE DISCLOSURE

5 A clustered computer system includes multiple computer systems (or nodes) coupled together via one or more networks that can become members of a group to work on a particular task. Each node includes a cluster engine, a cluster communication mechanism that includes a sliding send window, and one or more service tasks that process messages. The sliding send window allows a node to send out multiple messages

10 without waiting for an individual acknowledgment to each message. The sliding send window also allows a node that received the multiple messages to send a single acknowledge message for multiple received messages. By using a sliding send window to communicate with other computer systems in the cluster, the communication traffic in the cluster is greatly reduced, thereby enhancing the overall performance of the cluster.

15 In addition, the latency between multiple messages sent concurrently is dramatically reduced.